

# **USERS GUIDE**

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## **KM3209 LED**



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## **About the UserGuide**

Dear user,

To ensure the best performance of your e-bike, please read through the KM3209 LED product introduction carefully before use it. We will use the brief words to inform you of all the details (including hardware installation, setting and normal use of KM3209 the display) when using our display. Meanwhile, the introduction will also help you solve possible confusion and barriers.

## **Notes for Users**

Be careful during using display, do not plug in and out when electrified.

Avoiding of collision

Please do not tear off the stickers in case of water infuse

Please do not change the background parameter settings of the instrument at will, otherwise normal riding cannot be guaranteed.

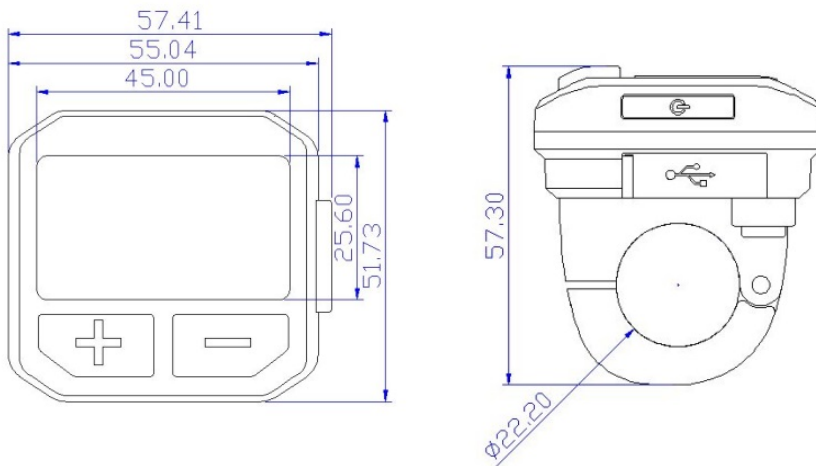
Send the faulty displays immediately when not working properly.

## 1. Appearance and Size

### 1.1 Materials and Color

The KM3209 LED is made of PC plastic. It has an operating temperature range of -20°C to 60°C. And it can guarantee good mechanical properties.

The photo and dimensions of the KM3209 can be found below. (unit: mm)



## 2. Function Summary and Button Definition

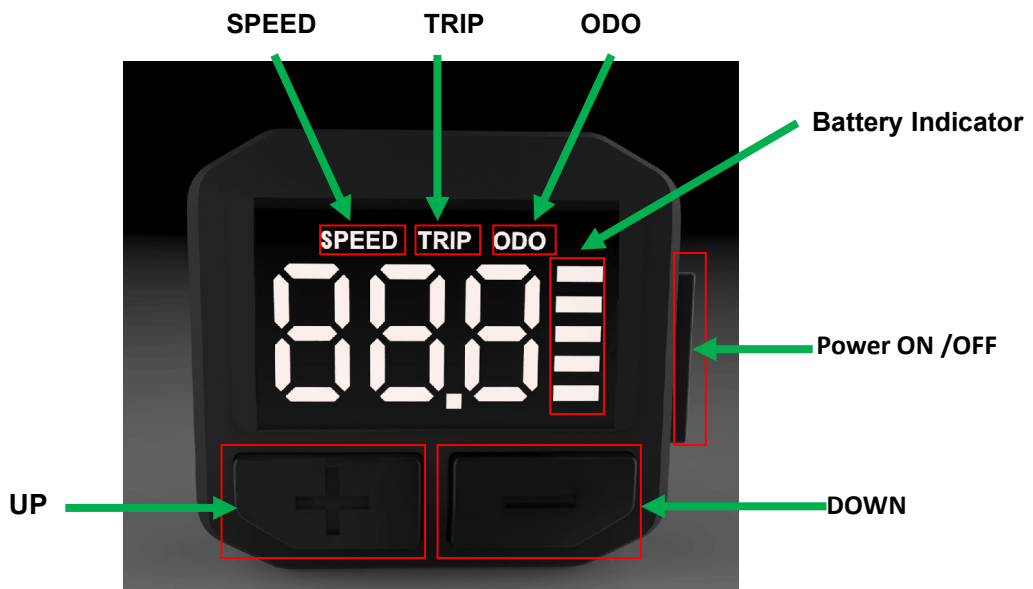
### 2.1 Function Summary

KM3209 LED offers plenty of functions and showing, in order to meet your needs, indicated contents are as follows:

- ◆ Battery indicator
- ◆ Real time speed
- ◆ Distance display (Trip, & ODO)
- ◆ PAS level
- ◆ Light state
- ◆ Error code


- ◆ Multiple parameter setting
- ◆ Mobile phone charging (only for instruments with USB interface)
- ◆ Support the ADST function(detailed information following the <ADST updated too(standard version)> instruction )
- ◆ The communication between the display and the controller is following the <ANADA's EN13849:2017 protocol V11.0\_1.3.4>, and above version. (Following the ANANDA's newest version and compatible with the old version.)

## 2.2 Monitor Area



KM3209 LED NORMAL DISPLAY INTERFACE

## 2.3 Button Definition

In subsequent instructions, button  is replaced by "MODE". Button "+" is replaced by "UP", button - is replaced by "DOWN".

## 3. Installation Instruction

Fix the display on the handlebar, adjust the angel. Connect the two plugs from display and controller when it is off power supply.

## 4. Standard Operation

### 4.1 Power ON / OFF

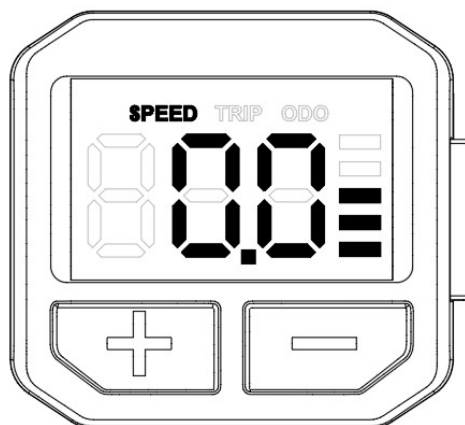
Hold on "MODE" for 1second to start display and supply power to the controller, When at working state, hold on "MODE" for 2.5 seconds to shut off E-bike power.

Display does not use the power in shutdown. Leak of current will be less than 1uA

If the E-bike doesn't use more than 10 minutes, display will turn off automatically.

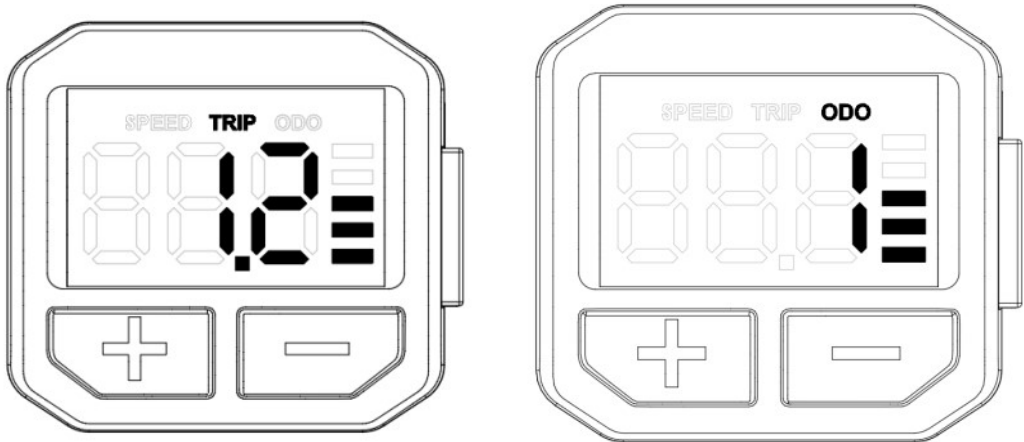
### 4.2 User interface

Power on the display and showing as following interface:



## 4.3 Current Speed/Trip /ODO

Press “MODE” can switch the Trip/ODO.This function facilitates users to view theTRIPand ODO data.



## 4.4 Walk Assist

Press and hold “UP” for 2second to start walk assist status. It enters into the Walk Assist mode,Release the button to exit walk assist status.

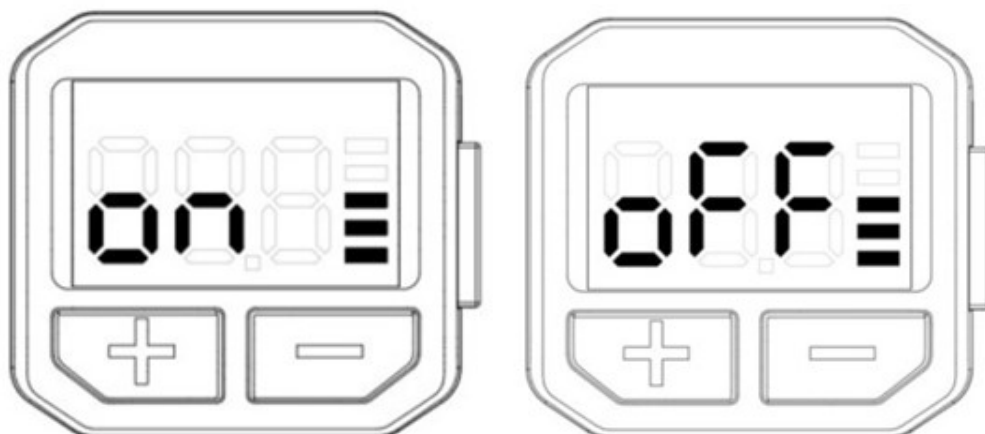


Walk assist can only be working when you push the bike and please do not start this function when riding.

## 4.5 ON/OFF the Headlight

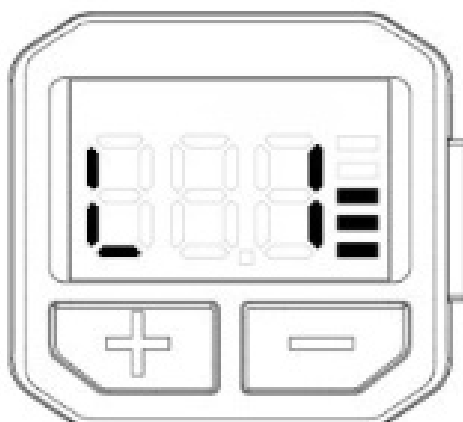
Press and hold on the “DOWN” over 2 second, turn on the headlight.

When the headlight is lighting, press and hold the”DOWN” over 2 seconds again, turn off the headlights.



## 4.6 PAS level Adjustment

Press either “UP”or “DOWN” to Shift the PAS level,change the output power of the motor. The PAS level ranges from level 1 to level 5.Preset PAS is Level 1





## 4.7 Battery Indicator

The display shows the battery capacity in 5 levels. When the battery is under-voltage, the last indicator will flash, prompting a recharge as soon as possible.



**FULL Power**



**Under-voltage**

If the battery has communication, the display has 1 second delay to show the right battery capacity; If the battery without communication, the display has 3seconds delay to show the right battery capacity.

If the display and the battery cut off communication over 5 seconds, the display will show the battery capacity data from the controller. The display will show the battery capacity when it communicate with battery again

## 5. Error code

When the e-bike electronic control system fails, the display will automatically report the error code. See Table 1 for the definition of the detailed error code.



The fault display interface can only be exited when the fault is eliminated. After the fault occurs, the e-bike will not be able to continue riding.

The communication between display and controller is interrupted, and the delay time is over 5 seconds. The display shows 60 seconds the communication error code, and then will shut down automatically.

**Table 1: Error list**

Error Code	Definition	Solution
21	Current Abnormality	Restart the display, if the problem still have, then connect with the supplier
22	Throttle Abnormality	Check the throttle function before power on E-drive system
23	Motor Abnormality	Check whether the phase line outlet is good; Check whether the motor phase wire is connected with the controller
24	Motor Hall Signal Abnormality	Check the cable, if the fault persists after restarting, the supplier will continue
25	Brake Abnormality	Check the brake sensor function before power on E-drive system
28	Other Abnormality	Restart or update the program or replace the controller
30	Communication Abnormality	Check whether the connection of the instrument is intact

## **6. Mobile phone charging (only for instruments with USB interface)**

Display with USB interface, this interface provides charging power for mobile phones, output 5V/500mA.

When the display is powered off, connect the mobile phone data cable between the display and the mobile phone, then turn on the display to start charging mobile phone. If the display is turned off at this time, the USB interface still charges the mobile phone. In any state, unplug the phone and the charging terminates automatically.

When the display is powered on, press and hold "MODE" and "DOWN" and "UP" for 2 seconds at the same time to trigger the USB charging function, and the display will charge the mobile phone.

## **7. Users Setting**

### **7.1 Preparation before Starting the Display**

Make sure the connector is firmly connected and turn on the electric bicycle power.

### **7.2 Single Trip Distance Clearance**

Trip clear setting can reset the trip distance of the display.

Press "MODE" and "DOWN" for 2 seconds can reset the trip data to zero.

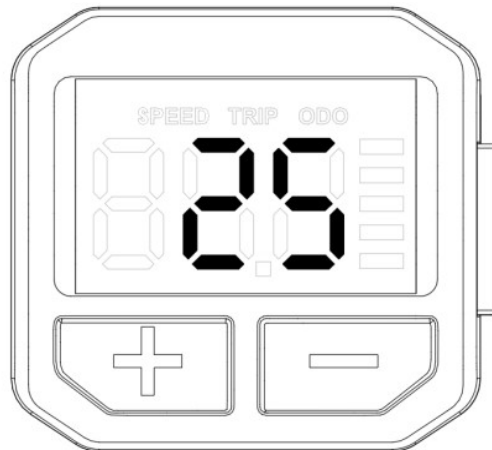
### **7.3 Parameter setting**

When the display power on with speed as zero, hold on "UP" and "DOWN" for 2 second, can enter the setting menu: limit speed, wheelsize, metric/inch.

## Limit speed setting

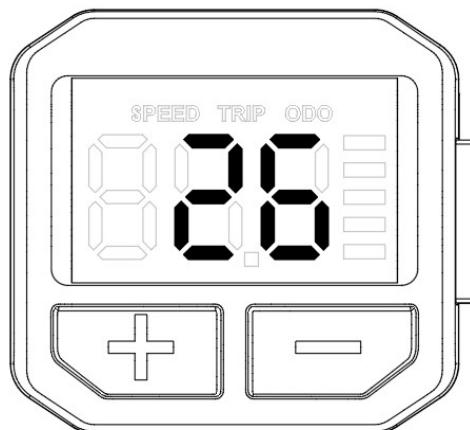
The first setting is the limit speed data, the default speed-limit setting is 25km/h. This is the max speed of the electric vehicle. When the electric vehicle exceeds the max speed, the controller will stop supply power to the motor to protect the safe driving of the rider.

The speed-limit range from 12km/h to 25km/h. Press "UP" or "DOWN" to select the value and then press "MODE" to confirm and exit. Press "MODE" can enter the next setting.



## Wheel size setting

Enter the second setting menu can set the wheelsize, the preset is 26inch. Change this data can set the right wheelsize, to ensure the speed, TRIP, ODO are compatible with the really E-bike.

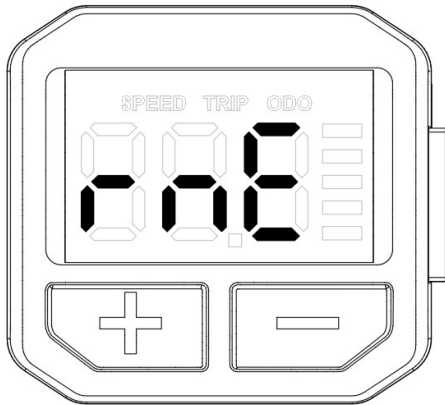


The range of the wheelsize: 16, 18, 20, 22, 24, 26, 700C, 28, 29.

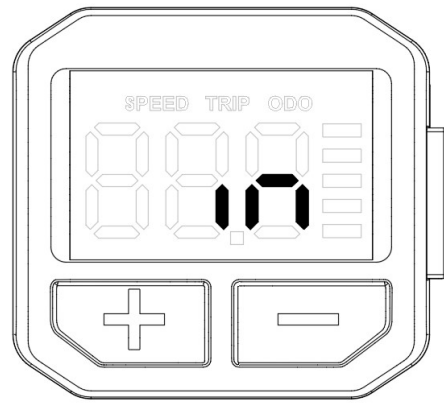
Use the “UP”/”DOWN” can change the data. After the setting, press “MODE” to confirm the setting and enter the next interface.

### **Metri/inch setting:**

Enter the third setting menu can set the metri/inch. The preset is Metri.



The Metri interface



The Inch interface

Use the “UP”/”DOWN” can change the data. After the setting, press “MODE” to confirm the setting and enter the next interface.

### **Exit Setting**

In the setting state, shortly press “MODE”button to confirm the input and enter the next setting; and hold “MODE” button to saveand exit the setting state.

No operation within 10seconds, the display will automatically exit the setting state.

## **8. FAQ**

Q: Why can't turn on the display?

A: Please check if the cable is well connected with the controller.

Q: How to deal with the error code display?

A: Contact the e-bike maintenance station in time.

## 9. Quality assurance and warranty scope

### I, Warranty Information:

1.King-Meter will be responsible for all faults arising during normal operation that are caused by a quality defect

2.The warranty time is 36 months from the day the display leaves the factory.

### II, The following are not covered by warranty

1, Shell opened

2, Connectors have been broken

3, After display out of factory,the shell is scratched or damaged.

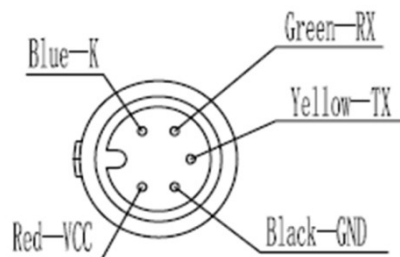
4, Lead wire of display scratch or break

5, The fault or damage is caused by the force majeure (such as fire, earthquake, etc.) or natural disasters (such as lighting, flooding, etc.)

6, Product exceeded warranty period

## 10. Connection layout

Standard connector line sequence:



Connecting terminal with controller

Connecting terminal of instrument outgoing terminal

Some cables use the water-proof connector, users are not able to see the inside color in this case.

<b>Series</b>	<b>Pin color and defination</b>	<b>Function</b>
1	RED (VCC)	VCC for the display
2	BLACK(GND)	GND for the display
3	YELLOW(TX)	Display send out the data
4	GREEN(RX)	Display receive the data
5	BLUE(K)	The power cable to thecontroller

## **11. Version changes**

The instruction manual of this instrument is the operation manual of the general software version (version 1.0) of Tianjin King-Meter Technology Co., Ltd. The version of the instrument software used on some vehicles may be slightly different from this manual, and the actual version used shall prevail.

# **KING-METER**